

MOHD ZAHIRUDDIN BIN MOHD KHAIRI

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**VACCINE HESITANCY AMONG PARENTS IN MALAYSIA: CAUSES,
RESURGENCE OF VACCINE-PREVENTABLE DISEASE AND STRATEGIES OF
OVERCOMING THIS ISSUE.**

- **Reasons for child vaccination refusal**

Personal health beliefs and vaccine-related reasons

- **Sources of vaccine hesitancy information**

Informal and formal sources

- **Effect of vaccine hesitancy**

Resurgence of Vaccine Preventable Diseases

- **Strategies in overcoming vaccine hesitancy**

Multidisciplinary approach and application of social and behaviour science theory

There is without any doubt that vaccination is one of the biggest accomplishments that mankind has ever created. Thanks to modern medicine, numerous national immunization programs conducted around the entire globe has protected millions of children and individuals from various infectious diseases that previously has caused many deaths each year. Despite their achievement, the number of anti-vaccination movements as well as vaccine hesitancies especially amongst parents are currently escalating.

Thus, this written report will address the causes of vaccine hesitancy among parents in Malaysia, recapitulation of health professional's opinion regarding vaccine hesitancy and the resurrection of vaccine preventable disease in Malaysia along with multidisciplinary approach and application of social science theory in overcoming this issue.

Malaysia is a progressive multi-cultural country that aims to become a high-income nation in near future has provided free vaccination programs for their citizens since early 1950s. The uptake has been outstanding. However, during recent years the numbers of parent refusal towards child vaccination has doubled which gave rise to numerous Vaccine Preventable Diseases (VPD). This inadmissible situation must be put a halt to. What are the root causes of vaccine refusal among Malaysian parents? To answer this question, a research was conducted by Rumetta J et. al from the Family Health Development Division, Ministry of Health Malaysia revealed that the reasons of vaccine hesitancy among parents are subdivided into two major groups, which are personal health beliefs and vaccine-related reasons (1).

In the context of personal health belief, it can be further divided into six sub-categories. Firstly, parents expressed their distrust in modern medicine as several parents argued that they experienced failure while using modern medicine in treating their illness. Therefore, they would consider vaccines are also ineffectual in disease prevention. Secondly, parents strongly believed that pharmaceutical companies manufactured vaccines for profitable gains and not for prevention of illness. This conspiracy made worst as these parents assumed that medical practitioners worked hand-in-hand with pharmaceutical companies for their own self-interest. Furthermore, parents are keener towards natural approach in maintaining health and immunity. Thus, avoiding any unnatural made-made medications especially vaccines in preventive medicine. In their argument, human body and its immunity were not created to be subjected to unnatural remedies to work normally. Likewise, contracting disease naturally will lead to long-lasting and stronger immunity. Moreover, religious beliefs in prohibition on vaccination, parents' instincts of not to vaccinate their child and partners with similar belief contributes heavily towards vaccine hesitancy in the communities (1).

On the other hand, there are four main factors that are related to vaccines that influenced parents' decision on reluctance towards vaccination. Firstly, almost all participants in the study were worried regarding the numerous health effects of vaccination that they considered life-threatening towards their children. For example, autism, brain injury, asthma, and many others. In addition, parents were of great concern regarding the contents of the vaccines especially non-halal products, toxic and heavy metals which they considered unacceptable to be used in their children. Moreover, parents believes that vaccines were needless as they assumed that the illness are treatable and VPDs are no longer a threat in the society. Finally, participants have lack of understanding, knowledge, and information regarding vaccines as they are too occupied with other commitments. Furthermore, most of the parents complained that healthcare

providers fail to provide adequate knowledge on vaccines. They stated that doctors only told them to vaccinate their children without informing the reasons behind it (1).

“What are the sources for vaccine hesitancy information?”. As reported in the study, parents obtained the information from numerous resources which are categorized into two main groups: informal sources (peer contents such as cyberspace website, online groups, friends and families) and formal sources (greater influential content for instance books, articles and public forums on vaccination) (1).

Clearly, vaccine hesitancy is indeed a sensitive matter in which parents can hide the truth while being interviewed. Therefore, the perspective from healthcare professionals is of great importance. A multidisciplinary qualitative study conducted in Kuala Lumpur involving experts from various specialties comprising of pediatricians, geriatricians, microbiologist, family medicine and public health specialist was carried out to collect their opinions on the grounds surrounding vaccine hesitancy. The stakeholders agreed that vaccine hesitance parents are swayed heavily by rumors of friends and social media as they are easily convinced with the information given. Thus, developed a strong belief against vaccine even though they themselves do not encounter or experienced any adverse events due to vaccination before (2).

Undoubtedly, vaccines are generally safe even if there are isolated cases of mild reaction and adverse event following immunization (AEFI) occurred after vaccination. However, some parents purposely exaggerate the symptoms and claimed that the clinical outcomes are related to vaccine. This irresponsible movement has raised concerns and suspicions on the safety of vaccines among other parents. Moreover, these panel of experts noticed a group of opportunists claimed to be alternative medicine practitioners promotes anti-vaccination movements for them to market their health products such as medicinal herbs or supplements as a replacement to vaccines. They are extremely vocal in social media in disseminating false news and convinced public not to vaccinate their children (2).

REASONS FOR VACCINE HESITANCY

A LOCAL CONTEXT

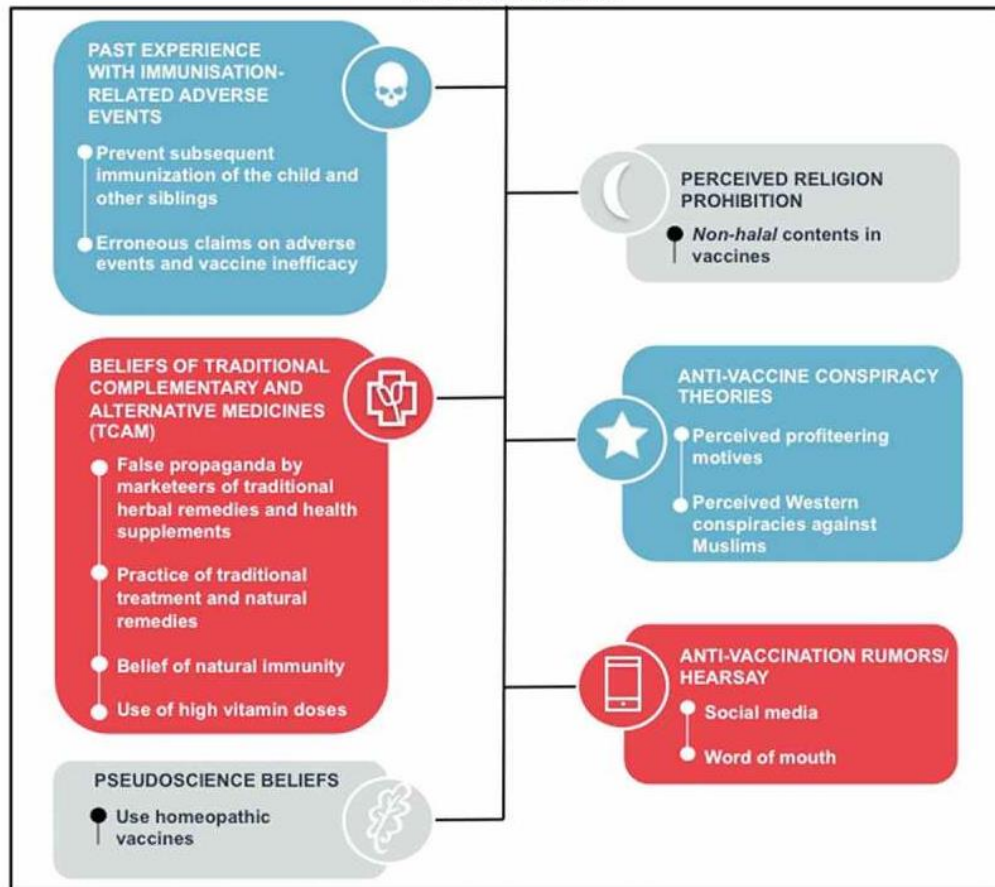


Figure 1: Reasons for vaccine hesitancy in Malaysia.

Clearly, vaccine hesitancy has taken its toll. Misinformation about vaccines led to enormous increase of VPDs with vast majority of death among children occurred in those who are not vaccinated. Addressing the resurgence of VPDs continues to be a colossal challenge. A handful of healthcare professionals highly believed in mandatory vaccination among children. However, many health experts expressed their concerns with this notion as it may cause dispute among various societies in Malaysia. Undoubtedly, if parents continue to express their reluctance towards vaccination, there is a probability of VPDs will continue to expand and therefore, all efforts to overcome this problem will be pointless. For this reason, countering vaccine hesitancy is the utmost importance step to be taken (2).

For this reason, multidisciplinary approach from public and non-public health officials, policy makers and others are crucial in preventing this situation from occurring. Aggressive engagement activities in providing accurate information on vaccination, the relevance of safeguarding children against VPDs as well as emphasizing the community regarding their duties in protecting others in the society from getting VPDs are important in tackling vaccine-hesitancy groups, as studies shown 43% on popular websites promotes anti-vaccination movement (3). This approach would enlighten them to support vaccination programs and helps to go against skeptics. On the other hand, in dealing with reluctant parents in vaccinating their children due to AEFIs or any other undesirable effects, appropriate feedbacks on the results of the investigations are needed to clear any misperceptions regarding vaccine. Patient feedbacks have a great impact on medical performance as reported by Baines R et.al. as it would help prevent the spread of false information to other parents (4)

Certainly, medical professionals must have in-depth knowledge with great communication and soft skills in engaging vaccine-hesitant parents in persuading them to accept vaccines at the first point of contact. For this reason, the importance of vaccination must be instilled in medical schools. The curriculum on understanding vaccine hesitancy and rejection among public including learning the process of vaccine development are essential for the purpose of bestowing knowledge and preparing them for future practice. Report showed nearly 64.2% of medical students were unaware of VPDs, vaccination schedule, safety and refusal as conducted in Lahore (5).

As social media remains the main proxy for dissemination of inaccurate, anti-vaccination propaganda, sterner action must be implemented. It is crucial as this erroneous information has snowballing effect that would gather a tremendous amount of influence among public. If a ban on social media deemed not feasible, then a much profound and swift response from healthcare professionals is necessary in countering this inaccurate information (2).

STRATEGIES TO COUNTERACT VACCINE HESITANCY

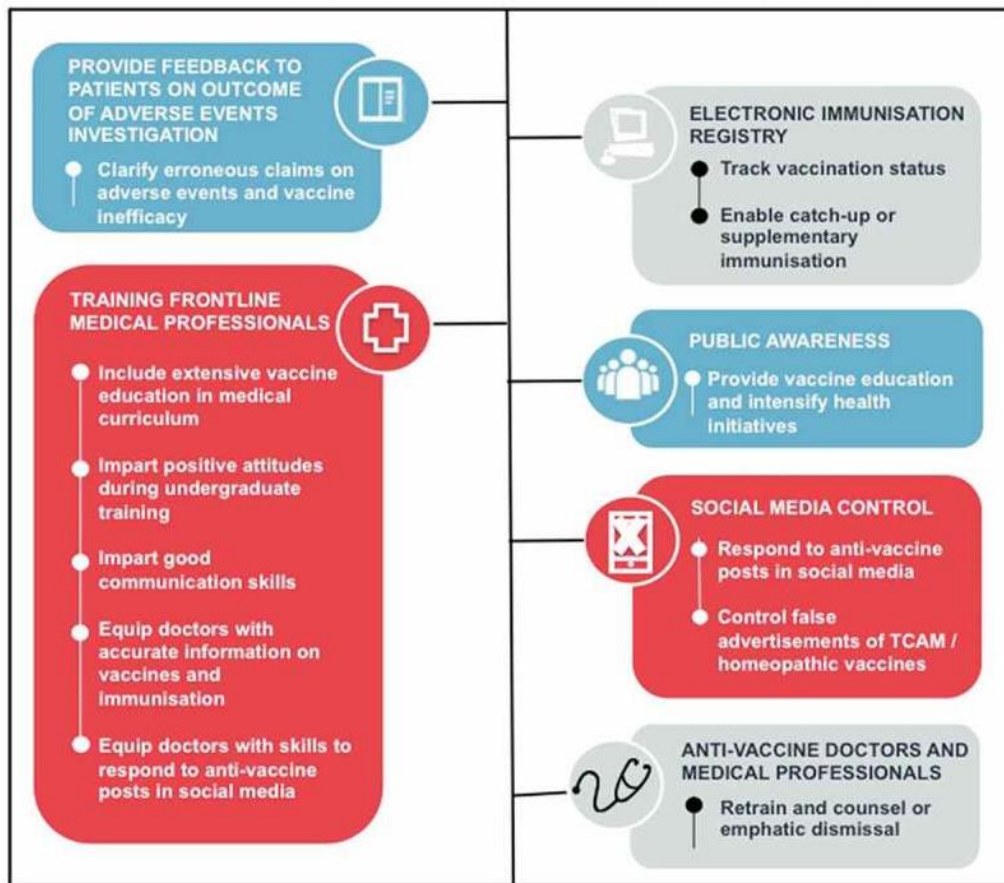


Figure 2: Strategies to counteract vaccine hesitancy.

Strategies in combating vaccine hesitancy does not only applies in policy making or enforcement of law, but also in the application of social and behavioral science. This includes the study of characteristic, attitude, and behavior of the population. A study conducted by Piltch-Loeb R et. al look upon the connection between social and behavioral science which is beneficial in understanding the variety of likely factors that would assist in encouraging vaccine uptake among individuals in a community (6).

In summary, there are several theories used in understanding the mechanism of health behavior which includes Health Belief Model, Transtheoretical Model, Theory of Reasoned Action, and others. These theories focused on people’s engagement in internal-decision-making action, pondering on the advantages and disadvantages of engaging a certain process. From this perspective, vaccination of their children (6).

To strengthen parent’s uptake in children vaccination program, a clear and coordinated public health effort is essential. The main aim is to shift parent’s perceived value regarding

vaccination by conceptualizing a “continuum for vaccine uptake”, composed of five main causes. Firstly, is by increasing the awareness of health threat by using targeted public health approached on education and promotional campaigns. This method is important in disseminating information on the risk and severity of VPDs and the efficacy of vaccines in reducing chance of contracting those diseases (6). Research by Jolley and Douglas demonstrated that exposure towards anti-vaccine conspiracy decreased the intention to vaccinate by manipulating parent’s feeling on powerlessness in abilities of changing health outcomes (7).

Secondly, vaccines must be made available and accessible at public health points are equally important as comfortable and familiar environment helps to increase the uptake of vaccination among children. For example, childhood vaccines are to be administered by pediatrician or by school nurses. This accustomed atmosphere will be more conducive for vaccination if compared to the crowded district health clinics as revealed by Peter A.M et.al that similitude results in more favorable evaluation and conviction of participants. (8).

Finally, the focus on understanding the acceptability of vaccination of children among parents need to be addressed appropriately. Every parent regardless of status, economic disparities or cultural background has their own beliefs already set in place as proved by neuroscientific research which showed 95% of our thoughts and decisions are already programmed by 6 years old, (9). As a result, it needs to be specifically targeted to their system of belief in addressing the importance of vaccination among children. Indeed, without realizing the cause of vaccine hesitance among parents, it will be difficult to design an effective vaccination program. Finally, trust-based relationship rather than inducing fear between healthcare providers and the community would help to lead a better vaccination uptake among children (6).

In conclusion, majority of parents in Malaysia has a wide range of misconceptions regarding vaccines which in turn makes them became hesitant towards child vaccination. Taking advantage on social and behavioral science methods, intense public health campaigns and promotions on shifting parents’ attitudes and beliefs towards vaccine uptake continuum remains a colossal challenge that is needed to be overcome to prevent the re-emergence of VPDs in the communities. Addressing vaccine hesitancy among parents requires a multidisciplinary approach in which one are not able to work in silo. “Alone we do so little. Together we can do so much”.

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